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STATISTICAL BULLETIN

METROPOLITAN LIFE INSURANCE COMPANY

VOLUME 16 JANUARY · 1935 NUMBER 1

New Minima in Industrial Mortality

NINETEEN THIRTY-FOUR established a new record for low mortality among the many millions of Industrial policyholders of the Metropolitan Life Insurance Company. The crude deathrate (ages one and over) dropped to 8.33 per thousand from 8.41 in 1933. When correction is made for the higher average age of the policyholders last year, the drop was still greater, from 8.03 in 1933 to 7.87 in 1934, a decrease of 2 per cent. These new minima show very clearly that health conditions have been maintained on a very high level among insured wage earners and their families in the United States and Canada. It is particularly noteworthy that among this insured group, the downward trend of mortality over more than two decades has not been interrupted during five years of economic disturbance.

Whether or not a new minimum deathrate was also established in 1934 for the general population of the United States cannot be determined at this writing. It will be months before the full record for the general population of the country will be available for last year. At this time, we have the preliminary figures for the completed year for only four states and the District of Columbia. There are also the figures for eleven months for twelve states and for shorter periods for nine other states. From these early figures, it would appear that increases in mortality of varying degrees occurred in 16 states, while decreases occurred in 10 states. Because these 26 states comprise about 70 per cent. of the population, the indications are that the general mortality of the United States in 1934 will probably show a slight increase over 1933.

Insured Lives Saved through Reduced Mortality

The crude deathrate among these millions of insured wage earners and their families, ages one year and over, was 33.6 per cent. lower than that for 1911, the year when our series of mortality records began. If in the year just passed, the deathrate of 1911 (12.5 per 1,000) had prevailed, there would have been 203,000 deaths among the Industrial policyholders instead of the 134,850 which actually occurred. This means a saving of about 68,000 lives in the year 1934 alone. Over the entire period since 1911, the accumulated saving of lives is now close to 1,000,000. It is true that there has

also taken place in the general population, during the same interval, a great improvement in mortality; but even after we deduct for the gains in the country at large, there is still a net saving of 530,000 lives over and above the saving that would have been effected through the reduction in the general population deathrate.

Extension of the Life Span, 1911 to 1933

The expectation of life at birth of Metropolitan Industrial policyholders for the year 1933 was 59.19 years, as compared with 46.63 years in 1911-1912. This is a gain of 12.56 years during a little more than two decades. In the general population of the United States, the gain has been only 8.22 years between 1911 and 1933. Thus, the gain among the insured is one and one-half times that for the general population. The expectation of life at birth for white insured lives alone is now well over 60 years. It is noteworthy that Metropolitan Industrial policyholders have now attained a life expectation very similar to that of the general population despite the fact that the insured represent a group of wage earners and their families who, almost altogether, live in cities and towns where deathrates run higher than in rural areas and who, on the average, suffer much greater exposure to the special hazards of industry than do those in the population at large.

Mortality by Age

The improvement in mortality among insured lives has affected all age periods. It is particularly marked among children and young adults. Even during the last five years, the mortality at ages one to four has declined 23.3 per cent., and at ages 35 to 44, there was a decline of 12.7 per cent. in the five-year period. The mortality among insured persons even at the older ages is continuing to register some improvement.

Principal Causes of Death; New Minimum Deathrates in 1934

Five diseases, diphtheria, tuberculosis, diarrheal conditions, chronic nephritis and diseases of the maternal state, and two types of violent death, accidental drownings and railroad accidents, recorded new low mortality rates in 1934. In addition, machinery accidents showed no change from the previous minimum, and the deathrate for homicides (6.0 per 100,000) was the lowest on record with a single exception (5.8 per 100,000 in 1920).

Mortality from Tuberculosis Drops Over 8 Per Cent.

As in every recent year, the greatest single public health achievement of 1934 was a large reduction, to a new minimum, of the tuberculosis deathrate. The decline from the figure for 1933 was 8.4 per cent., which was among the largest year-to-year drops ever recorded for tuberculosis among Metropolitan Industrial policyholders. The actual 1934

tuberculosis deathrate was 59.6 per 100,000, and the rate fell below 60 for the first time in the history of these insured wage earners. Among white Industrial policyholders alone, the rate declined to the unexpected minimum of 46.5 per 100,000, confirming, in large measure, the previous indications that the deathrate from tuberculosis is rapidly approaching the point where it may be considered one of the minor factors in mortality. It is significant that the deathrate from tuberculosis among the insured industrial population is now only slightly higher than that for the general population, which includes huge numbers of farmers, business and professional workers and other persons on a much higher social and economic plane. The tuberculosis deathrate in 1930, the first depression year, was 81.3 per 100,000. Thus, in a five-year period of economic maladjustment the mortality rate from tuberculosis has fallen 27 per cent. As compared with the year 1911, when the Metropolitan began to record mortality rates by individual causes of death, there has been a decline of 73.5 per cent. The social and economic benefits which accrue from such an enormous reduction in the tuberculosis deathrate are incalculable. Family burdens arising from long periods of disability are lightened. The highest mortality rate from tuberculosis among white male insured wage earners, in 1911, was in the age group 35 to 39 years; it is now in the group 55 to 59 years. Thus, the heaviest burden now occurs well toward the close of life instead of at its prime and before the dependents of the wage earners are self-supporting.

Principal Communicable Diseases of Childhood

The deathrate for the four principal diseases of childhood, combined, rose slightly in 1934. This was due entirely to increased mortality from measles and whooping cough. The mortality rate in the case of each of these four diseases nevertheless remained at an extremely low level. Comparison with the figures of ten years ago shows a drop of 68 per cent. for the four diseases combined, of 60 per cent. for measles, 41 per cent. for scarlet fever, 51 per cent. for whooping cough and 84 per cent. for diphtheria. The chief interest in this group of diseases continues to lie in diphtheria; for, only a decade ago, as many deaths were charged to this disease as to the three others combined. Today it ranks third among the four. Diphtheria has taken its place with diseases like smallpox and typhoid fever in demonstrating what can be accomplished in the control of communicable conditions. It is nevertheless true that there are still a number of states and large cities where the diphtheria deathrate remains high despite the fact that the way to control and banish it, namely, through immunization of susceptible children, is known everywhere. It is difficult to understand how any American community can still per-

mit the continuance of a high diphtheria deathrate.

Poliomyelitis

Although 1934 was marked by wide prevalence of poliomyelitis in California and other Western states, during the summer months, the year closed with the lowest deathrate (0.5 per 100,000) ever recorded for this disease among Metropolitan Industrial policyholders. The case-fatality rate was well below that of previous epidemics.

Influenza Deathrate Lowest Since 1921; Deaths from Pneumonia Increase

The year has been signally free from that type of influenza which runs quickly into pneumonia and causes death. The 1934 influenza deathrate was only 10.2 per 100,000, the lowest figure registered with a single exception—8.7 in 1921. Even during the extreme cold of last winter, the influenza mortality rate remained outstandingly low. Inasmuch as a decline in deaths from influenza is usually accompanied by a drop in the mortality from pneumonia, an improvement was expected for the latter. Instead, the pneumonia deathrate increased somewhat in 1934. Apparently, relatively few of the year's fatal pneumonia cases were of influenzal origin. Despite the 1934 rise in pneumonia mortality, the deathrate for this disease remained low and the year closed with an increase of less than 3 per cent. over the previous minimum which was recorded for the year 1933.

Maternal Mortality

The mortality rate from conditions arising out of pregnancy and childbirth has registered a practically continuous decline among this group of insured women over a period of 14 years. The puerperal deathrate of 1934 (8.9 per 100,000) was less than half that recorded in the early years of the decade beginning with 1920. Crude deathrates, however, are not accurate measures of developments in the mortality from diseases of the maternal state. The practically continuous decline has been due, in some degree, to the declining birthrate whereby fewer women have been exposed to the risks of childbirth. The ratio of deaths from these diseases per 1,000 live births is a much more accurate measure of what has happened. Such data, unfortunately, are not obtainable with respect to maternal mortality among insured women. Nevertheless, the decline in the crude maternal mortality rate has been much greater than in the birthrate, indicating that substantial gains have been made in this group of women. In the general population, however, the puerperal deathrate per thousand live births has not shown much, if any, improvement in recent years.

Diarrheal Diseases

The deathrate from diarrheal diseases was at a new low point in 1934 among Metropolitan policyholders ages one year and over. A small rise was nevertheless recorded among insured infants, the age group to which

the main interest attaches in connection with diarrheal complaints as a public health problem. The infant diarrhea deathrate, despite the rise in 1934, remained at a low level. The rise may possibly reflect increased difficulty in maintaining the standards of infant feeding and community and household sanitation which have been such important factors in the reduction of deaths from these diseases.

New Low for Chronic Nephritis

Another disease to register a new low mortality rate in 1934 was chronic nephritis. There has been relatively little variation in the crude deathrate for this disease for 20 years, except the declining trend observed since 1928. The drop is much larger when the rates are standardized to make allowance for changes in the age distribution of the Metropolitan Industrial policyholders. The crude rate for 1934 (65.7 per 100,000) is 31 per cent. lower than the figure for 1911. Both whites and Negroes have shared in the decline; but the deathrate of the latter is two and one-half times that of the former.

Where the Deathrate Has Increased

The year 1934 showed for the first time in a number of years an increase in the rate from the communicable diseases of childhood. Measles and whooping cough both showed rises. Diarrhea and enteritis under age 2 likewise increased. These and a few other changes in the recent trend perhaps explain why for the first time in many years there was a slight increase in the total mortality at the age period one to four in 1934, as contrasted with 1933. Among diseases affecting the higher ages, the crude deathrate rose in 1934 for cancer, diabetes, diseases of the heart, accidents (all forms), accidental burns, accidental falls and automobile fatalities. It is important, however, to indicate that some of these increases disappear when the rates are adjusted to take into account the changing age distribution of the insured population.

Cancer

The rise in cancer mortality, even as shown by the crude deathrate, was much smaller than has been in evidence since 1931; and when allowance is made, through adjusted rates, for the shift toward a higher average age of insured lives, it develops that there was no increase at all in 1934 as compared with 1933. Deaths from cancer, like those from the degenerative diseases, are concentrated in later life and there is no doubt but what a time series of crude deathrates gives an exaggerated picture of the increase which has occurred. In interpreting the data on cancer mortality, certain other facts must be borne in mind. First, most cancers affect internal organs, making diagnosis more difficult. Second, diagnostic procedure and medical knowledge concerning cancer have been continuously im-

proving. Third, hospitalization, operations and autopsies—all of which contribute toward the more accurate diagnosis of cancer—have increased in frequency. The effect of these influences on the cancer deathrates cannot be measured accurately and, therefore, no satisfactory means of correction, taking these factors into consideration, can be devised. There is, however, a strong suspicion that the trends of the deathrates for cancers of certain sites have been strongly affected by them. Some of the increase, therefore, as shown in the cancer mortality rates, simply reflects the increasing frequency with which cancer is being diagnosed. In general, the deathrates from cancers which are directly visible, and thus easily diagnosed, have decreased, while those of cancers of some of the internal organs, where diagnosis is more difficult, but steadily improving, have increased.

Heart Disease

The crude deathrate for heart disease, like that for cancer, increased slightly in 1934, but the standardized figure actually shows a small reduction in the mortality from cardiac conditions. When more complete data become available, later in the year, we shall be able to tell whether the marked declining tendency which we observed in 1934, in the deathrate from endocardial affections is still in evidence. This type of heart disease is, very often, a sequel of focal infections and of other controllable diseases; and as the incidence of these declines, the chances for further reduction in the heart disease deathrate of early adult and middle life will improve.

Diabetes

Diabetes is another disease to show an increase, to a new high, in its crude deathrate, and a slight decline when adjustment is made to make allowance for the larger proportion of Metropolitan Industrial policyholders, which is finding itself in the higher age ranges where most of the deaths from diabetes occur. Possibly, the increasing use of the insulin treatment has at last begun to check the rise in the diabetes deathrate, in addition to prolonging the lives of scores of thousands of diabetics. Through the use of insulin, deaths are being postponed to the older age ranges and the average duration of life of diabetics from the onset of the disease until death, has been increased by several years in the last decade.

Alcoholism Deathrate Unchanged in First Full Year of Repeal

Nineteen thirty-four, the first full year since the repeal of prohibition, was not marked by any increase in deaths from alcoholism among insured wage earners. There was, in fact, a drop of 9 per cent. among white policyholders in the alcoholism deathrate of 1934, as compared with that for 1933. The rate for white and colored policyholders combined remained at the low level of 1933, namely, 2.3 deaths per 100,000 policyholders. This rate is the lowest since 1923. Deaths due to acute

poisoning from wood or denatured alcohol continue to be negligible, numbering 13 in 1934, as compared with 26 in 1933.

Fewer Suicides and Homicides; More Accidents and Automobile Fatalities

There were fewer suicides in 1934, reflecting, in our judgment, the up-

METROPOLITAN LIFE INSURANCE COMPANY

Deathrates per 100,000 for Principal Causes. Weekly Premium-Paying Business in Industrial Department. 1911 and 1924 to 1934.
(Ages One and Over)

Cause of Death	1934*	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1911
All Causes of Death	832.6	841.1	835.3	845.8	837.1	891.9	869.3	842.2	885.7	846.3	848.0	1253.0
Typhoid fever	1.5	1.6	1.7	2.4	2.4	2.4	2.7	4.7	4.2	4.6	4.4	22.8
Communicable diseases of childhood	8.5	7.4	9.5	11.9	12.4	16.7	19.0	19.7	25.9	19.7	26.2	58.9
Measles	2.3	1.3	1.4	2.6	2.3	2.4	4.2	3.4	8.0	2.5	5.7	11.4
Scarlet fever	2.5	2.6	2.8	3.2	2.5	2.7	2.6	3.0	3.4	3.4	4.3	13.1
Whooping cough	1.7	1.0	1.4	1.7	1.9	3.0	2.7	3.1	5.0	3.6	3.5	7.1
Diphtheria	2.0	2.5	3.8	4.3	5.7	8.6	9.5	10.2	9.5	10.2	12.7	27.3
Influenza and pneumonia	66.7	73.6	74.5	81.3	75.9	111.7	94.8	78.7	105.6	88.3	84.4	131.2
Influenza	10.2	18.8	17.7	19.2	13.2	37.7	22.0	15.7	27.4	19.4	14.2	15.9
Pneumonia	56.4	54.8	56.7	62.1	62.7	74.0	72.8	63.0	78.2	69.0	70.2	115.3
Poliomyelitis	.5	.6	1.0	2.6	1.1	.6	1.2	2.0	.7	1.4	1.0	1.6
Tuberculosis—all forms	59.6	65.1	70.2	76.7	81.3	87.3	90.6	93.8	99.5	98.2	104.4	224.6
Tuberculosis of respiratory system	52.8	58.4	62.5	68.1	71.3	77.7	80.0	83.0	87.9	87.0	93.4	203.0
Cancer—all forms	97.3	95.9	92.4	85.4	79.5	78.8	77.0	75.6	75.1	71.8	71.5	68.0
Diabetes mellitus	24.7	24.4	23.3	21.4	18.7	18.6	17.9	17.1	17.0	15.5	15.1	13.3
Alcoholism	2.3	2.3	2.5	2.9	3.2	3.5	3.3	3.5	3.7	3.0	2.9	4.0
Cerebral hemorrhage, apoplexy	†64.0	†64.5	†62.9	†61.3	†61.3	58.9	57.6	56.0	56.5	54.4	61.1	64.2
Diseases of heart‡	164.9	163.5	157.5	150.1	147.1	149.0	144.4	134.7	136.4	128.7	125.2	141.8
Diarrhea and enteritis	4.4	4.6	4.6	5.9	8.0	7.9	8.7	9.1	10.5	12.3	11.3	28.0
Chronic nephritis (Bright's Disease)	65.7	68.1	69.6	68.1	69.2	70.6	71.8	70.8	74.9	71.2	66.5	95.0
Puerperal state—total	8.9	9.5	10.7	11.9	12.3	13.8	14.2	15.7	15.6	16.9	17.2	19.8
Total external causes	73.3	72.1	71.8	78.0	79.4	80.6	77.8	79.8	77.2	78.3	76.9	97.9
Suicides	9.6	10.1	10.8	10.2	10.0	8.7	8.5	8.4	7.8	7.0	7.3	13.3
Homicides	6.0	6.3	6.2	7.1	6.8	6.7	6.8	7.4	7.2	7.4	7.2	7.2
Accidents—total	57.8	55.7	54.8	60.7	62.6	65.2	62.5	63.9	62.3	63.9	62.4	77.4
Accidental burns	3.5	3.3	3.7	3.8	4.5	4.9	5.3	5.3	6.1	6.1	6.4	8.8
Accidental drowning	5.3	6.1	6.0	6.5	6.3	6.5	7.1	6.8	6.3	6.5	7.3	10.2
Accidental traum. by fall	11.1	10.6	10.2	10.1	9.7	9.1	8.0	8.5	7.9	8.1	7.7	13.2
Accidental traumatism by machines	.8	.8	.8	1.0	1.3	1.6	1.2	1.4	1.4	1.3	1.3	1.8
Railroad accidents	2.6	2.9	2.8	2.8	3.0	3.9	3.9	4.1	4.2	4.0	4.0	9.5
Automobile accidents	21.4	20.0	19.2	22.3	21.2	21.3	18.7	18.7	17.0	16.8	15.9	2.3
All other accidents	13.1	12.0	12.1	14.4	16.6	17.8	18.3	19.1	19.4	21.2	19.7	31.6
Other diseases and conditions	190.3	187.9	183.1	185.9	185.3	191.5	188.3	181.0	183.6	183.4	180.9	283.5

*All 1934 deathrates subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

†Rates for 1930, 1931, 1932, 1933 and 1934 not comparable with those for other years, due to changes in classification procedure.

‡Excluding pericarditis, acute endocarditis, acute myocarditis and angina pectoris.

ward turn of the economic tide. The figure, 9.6 per 100,000, was the lowest since 1929. The same economic improvement, however, operated to bring about an increase in accidents and in automobile fatalities. Large numbers of wage earners returned to gainful employment and were exposed to the hazards of industry. Similarly, more persons were subjected to the dangers of motor vehicle traffic as the result of the 1934 increase in the volume of such traffic. We find that the rise in the automobile accident deathrate was confined to our white Industrial policyholders, among whom the increase amounted to 7.7 per cent. We estimate that the total number of automobile fatalities in the general population last year was very close to 35,000.

The 1934 homicide deathrate (6.0 per 100,000) was the lowest in the history of Metropolitan Industrial policyholders, with the single exception of 1920, when a rate of 5.8 per 100,000 was recorded.

Pellagra Deathrate Continues to Decline

THROUGHOUT the economic crisis the pellagra deathrate has continued to decline. In 1932*, we called attention to the decline during the years 1930 and 1931, which had taken place in the face of extensive unemployment and a reduction in the ability of many families to maintain a pellagra-preventive diet. The extent of the further improvement is indicated by the fact that among Metropolitan Industrial policyholders, ages 1 to 74 years, the standardized deathrate from the disease has dropped from 2.5 per 100,000 in 1929 to 1.2 in both 1933 and 1934, a decline of more than 50 per cent. Moreover, the rates for the past two years were the lowest registered among these Industrial policyholders in almost a quarter century.

Similarly, in the general population of states where the disease is endemic, we find a downward trend in the pellagra mortality. The table on page 9 displays the annual deathrates per 100,000 in selected states for the years 1929 to 1933.

For the twelve states combined the crude deathrate from pellagra in 1933, 10.5 per 100,000, was 54 per cent. below that for the year 1929, 22.9 per 100,000. None of the states listed in the table showed a decline of less than 31 per cent. between 1929 and 1933. Meriting special attention is the fact that the greatest decreases in the deathrate have been, in general, registered in precisely those states where the rates were highest. South Carolina, the state which, year after year, registers the highest pellagra deathrate, recorded the largest drop, 65 per cent.; Arkansas and Mississippi, where the problem is always grave, registered declines of 57 per cent. and 60 per cent. respectively.

Several factors have contributed

*STATISTICAL BULLETIN, June, 1932.

to bring pellagra mortality under control. Probably the most potent has been the consumption of brewers' yeast, distributed in generous quantities by health departments and other welfare organizations in the South. Another factor has been the promotion of home gardening which yields to families pellagra-preventive foods. Undoubtedly governmental and private relief agencies have recently played an important part in reducing the pellagra deathrate.

Despite the diminished death toll exacted by pellagra in recent years, the disease continues to be an important item in the death registers of several Southern states. In 1933, seven of the states appearing on our table recorded deathrates in excess of 10 per 100,000. The maximum rate, 18.8 per 100,000, was in South Carolina. Furthermore, Texas which did not come into the Registration Area until 1933, showed a deathrate of 11.9 per 100,000 in that year.

The importance of pellagra in the mortality records of states where it is endemic is shown by the fact that its death toll is higher than for diabetes, appendicitis or accidental falls, and approximately three times that for non-respiratory tuberculosis. Pellagra is, therefore, a fertile field for life conservation work. In 1933, the disease was responsible for approximately 4,000 deaths in the United States. It is estimated that there are over 125,000 persons in this country afflicted with the disease. The prevention of pellagra does not entail the combating of insidious and unseen foes; it requires simply a diet which includes adequate amounts of such foods as lean meat, milk and vegetables. Great progress in this direction has been made and more gains are in sight.

Pellagra

Crude Deathrates per 100,000 Persons, All Ages, in General Population of Selected States, 1929 to 1933

State	Deathrate per 100,000					Per Cent. Decline 1933 Since 1929
	1933	1932	1931	1930	1929	
12 States Combined	10.5	11.8	16.3	20.7	22.9	54.1
Alabama	13.8	13.2	16.9	24.0	25.4	45.7
Arkansas	12.1	11.8	23.0	26.2	27.9	56.6
Florida	12.3	13.1	14.5	16.1	22.0	44.1
Georgia	14.3	17.0	19.5	24.4	30.2	52.6
Kentucky	3.5	2.6	4.2	4.9	5.1	31.4
Louisiana	9.0	8.3	11.4	13.0	13.7	34.3
Mississippi	15.0	17.3	27.8	28.4	37.8	60.3
North Carolina	12.0	14.8	21.6	32.4	30.4	60.5
Oklahoma	4.4	6.1	9.9	12.5	11.8	62.7
South Carolina	18.8	24.9	33.7	45.2	54.4	65.4
Tennessee	8.6	10.9	11.4	15.5	15.9	45.9
Virginia	4.8	5.3	8.3	9.0	9.4	48.9

Health Record for December, 1934

AN UNPRECEDENTEDLY favorable health year among Metropolitan Industrial policyholders closed with the lowest December deathrate ever recorded in this large cross-section of the American and Canadian populations, namely 8.1 per 1,000. Up to this year, the minimum figure for December was 8.2, recorded in 1931. Every important cause of death with the exception of diabetes, puerperal diseases, suicides and automobile fatalities, registered a reduction in December from its mortality rate for the corresponding month a year ago.

The deathrate in the general population of the large cities of the United States was 12.2 per 1,000 estimated population, which is the December average for the previous five years. This may be compared with a rate of 11.0 in November, 1934, and 12.0 in December, 1933. The diseases which increased in prevalence during the month of December, as compared with November, were influenza, measles, scarlet fever and smallpox; less sickness from diphtheria, poliomyelitis and typhoid fever was reported. Comparison with December, 1933, shows that there were more cases of influenza, measles, poliomyelitis and scarlet fever, but less sickness from diphtheria, smallpox and typhoid fever. Reports received month by month from these cities show that the 1934 deathrate exceeded that for 1933 in every month except two, and that the cumulative rate up to December 29, 1934, was 11.4 per 1,000, as compared with 11.0 for the corresponding part of 1933.

Reports from 16 states indicate that there were more than twice as many cases of influenza during December as in November. The states which showed particularly large increases were New Jersey, Ohio, Alabama and Oklahoma.

Among the noteworthy items of public health interest during December, the following may be mentioned. The CALIFORNIA MEDICAL ASSOCIATION has appointed a committee of five for a study of medical care in that state. A medical economic survey is being made into the health and economic status of the general public, as well as an analysis of the medical and dental professions and of public health and hospital facilities in California. A field representative of the AMERICAN SOCIETY FOR THE CONTROL OF CANCER has been authorized to conduct a cancer survey in the State of Michigan. DR. S. S. GOLDWATER, Commissioner of Hospitals for New York City, has announced that he is planning to set up a Medical Research Council to develop research activities in New York's hospital system.

The following table shows the mortality among Industrial policyholders for December, 1934, November, 1934, and December, 1933, together with the deathrates for the years 1934 and 1933.

METROPOLITAN LIFE INSURANCE COMPANY

Deathrates per 100,000 for Principal Causes. Weekly Premium-Paying Business in Industrial Department. All Ages (Annual Basis).*

MONTHS OF DECEMBER, 1934; NOVEMBER, 1934, AND DECEMBER, 1933

CAUSES OF DEATH	ANNUAL RATE PER 100,000 LIVES EXPOSED*				
	Dec. 1934	Nov. 1934	Dec. 1933	YEAR	
				1934	1933
TOTAL—ALL CAUSES	811.7	841.2	869.0	853.3	860.0
Typhoid fever	1.3	1.0	1.4	1.5	1.6
Measles	.7	.6	.9	2.7	1.5
Scarlet fever	2.7	2.2	2.5	2.6	2.6
Whooping cough	3.6	2.6	2.2	3.7	2.3
Diphtheria	3.4	3.2	4.0	2.1	2.6
Influenza	13.3	8.8	14.3	11.3	20.3
Tuberculosis (All forms)	49.4	56.1	60.1	59.3	64.7
Tuberculosis of respiratory system	44.6	50.2	54.5	52.2	57.8
Cancer (All forms)	90.6	101.6	92.3	96.0	94.6
Diabetes mellitus	24.6	23.3	22.8	24.3	24.1
Cerebral hemorrhage; apoplexy	65.1	66.9	66.1	63.2	63.8
Diseases of heart†	152.7	154.4	165.8	162.7	161.5
Pneumonia (All forms)	64.7	56.1	85.6	65.0	62.5
Other respiratory diseases	9.7	10.8	11.1	9.3	9.7
Diarrhea and enteritis	5.4	10.8	6.7	11.1	10.6
Chronic nephritis (Bright's disease)	56.0	65.5	65.2	64.8	67.1
Puerperal state—Total	7.6	6.8	6.6	8.8	9.4
Suicides	8.9	8.9	8.1	9.4	10.0
Homicides	6.2	5.5	6.6	5.9	6.3
Accidents—Total	56.2	60.0	55.9	57.8	55.6
Automobile accidents	23.6	26.2	23.3	21.1	19.8
All other diseases and conditions	189.9	196.0	190.9	191.9	189.1

*The rates for 1934 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

†Excludes pericarditis, acute endocarditis, acute myocarditis and angina pectoris.

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Metropolitan Life Insurance Company,
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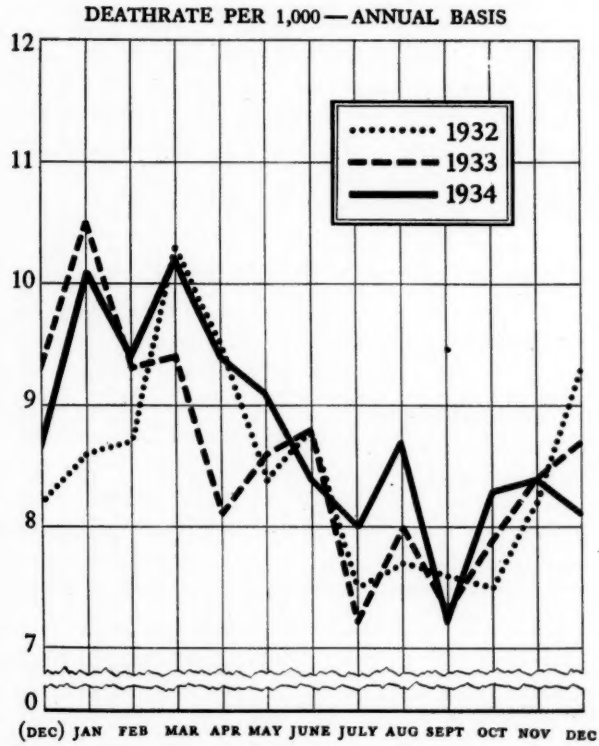
DEATHRATES FROM ALL CAUSES

in the Metropolitan Life Insurance Company
Industrial Department



1932	8.6	8.7	10.3	9.5	8.4	8.8	7.5	7.7	7.6	7.5	8.2	9.3
1933	10.5	9.3	9.4	8.1	8.6	8.8	7.2	8.0	7.3	7.9	8.4	8.7
1934*	10.1	9.4	10.2	9.4	9.1	8.4	8.0	8.7	7.2	8.3	8.4	8.1

**Rates for 1934 are provisional.*

METROPOLITAN LIFE INSURANCE COMPANY PRESS
NEW YORK, U.S.A.
78376